0316 **IS IT COST EFFECTIVE TO INTRODUCE INTRA-OPERATIVE MOLECULAR ANALYSIS OF SENTINEL LYMPH NODES USING ONE STEP NUCLEIC ACID AMPLIFICATION (OSNA)?**

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Introduction: Axillary ultrasound is reported as having a sensitivity of 60-72.7% in detecting metastatic lymph nodes, while intra-operative molecular analysis with OSNA has a reported sensitivity of 91.7-100%. The purpose of this audit was to assess the sensitivity of ultrasound within our unit, thereby ascertaining cost effectiveness of introducing OSNA.
Methods: Patient records were audited retrospectively for all breast cancer patients who underwent axillary lymph node dissection (ALND) between December 2009 and November 2010 inclusive.
Results: A total of 184 sentinel lymph node biopsies (SLNB) and 75 ALNDs were carried out during the audit period. Eighty-four per cent (n=63) of patients who underwent ALND had an ultrasound scan prior to surgery. Ultrasound demonstrated a sensitivity of 41%, resulting in a return to theatre for a completion axillary lymph node dissection (CALND) in 39 patients, incurring estimated additional costs of between £69,303 and £100,386 and inpatient occupancy of between 62.01 and 140.4 inpatient-days.
Conclusions: The sensitivity of axillary ultrasound was poorer than in the literature. OSNA has been calculated to cost an additional £300 per procedure, meaning additional costs of £55,200 for our department. This would represent potential gains of up to £45,186, rendering the introduction of OSNA highly cost effective.

0321 **THE IMPACT AND APPROPRIATENESS OF PATIENT PLACEMENT IN ACUTE SURGICAL ADMISSIONS – A CLINICAL AUDIT**

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Acute surgical admissions should be placed in an appropriate bed first time round for no longer than necessary. Little evidence for best practice exists but variance could affect patient safety and experience, infection rates, efficiency of seeing patients and increase elective cancellations. Demand often outweighs bed availability and outlying is inevitable. Making this safe, appropriate and minimising bed changes should be a priority. This audit assesses patient placement with opinions of admitting consultants and ward managers in a large inner-city teaching hospital.
Methods: A proforma was completed for all acute adult surgical admissions in a 12 day period (n=82). Opinions on appropriate wards for 12 common surgical conditions were collected from consultants (n=12) and ward managers (n=14).
Results: 82 were admitted (median age 54; 35 male). 30% were allocated appropriate wards and 20% non-surgical wards. 73% underwent at least one ward transfer. 47 were placed inappropriately. Consultant and ward manager opinions are presented.
Conclusions: Medical and nursing staff are unhappy outlying acute surgical patients. Patients should be outlied in conjunction with guidelines approved by admitting consultants and ward managers. A dedicated short stay surgical assessment ward (48-72 hours) could improve patient safety, increase efficiency and reduce length of patient stay.

0325 **CLINICAL OUTCOME AFTER CUBITAL TUNNEL DECOMPRESSION**

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Introduction: The study was designed to evaluate the clinical outcome after open in-situ decompression surgery for cubital tunnel syndrome.
Method: Ninety seven patients underwent in-situ decompression of the cubital tunnel for ulnar nerve symptoms. Case records were reviewed assessing severity of symptoms according to the McGowan scale. Patients with a preceding injury, surgery or previous compression were excluded.
Results: Eighty patients underwent primary decompression, seventeen patients were excluded. According to the McGowan scale 10 patients had grade I (12.5%), 57 (71.25 %) grade II and 7 grade III (8.75 %) symptoms. 56 patients (70%) completed the outcome scale measure. 83.9% of patients' overall symptoms were better or had been cured. 7 (12.5%) reported their symptoms as the same and 2 (3.57%) said they were worse than pre-operatively. 20 (35.7%) patients reported complete resolution of numbness, 24 (42.9%) described mild and 12 (21.4%) described moderate numbness. 39 (69.6%) had no night symptoms, with 13 (23.2%) and 4 (7.1%) describing occasional or frequent night symptoms.
Conclusion: In-situ open primary cubital tunnel decompression is effective in improving symptoms related to ulnar nerve decompression. Patients should be counselled the procedure is designed to stop progression of symptoms rather than provide complete resolution.

0326 **CLINICAL VALUE OF THE NUMBER OF POSITIVE DIAGNOSTIC BIOPSY CORES IN PREDICTING BIOCHEMICAL RELAPSE IN MEN TREATED FOR PROSTATE CANCER**

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Introduction: Tumour extent in diagnostic needle biopsies has been proposed as a predictive marker of treatment response in prostate cancer. Here we tested its predictive value in men treated either for curative intent by radical prostatectomy (RP) or palliative intent by primary androgen deprivation therapy (PADT).
Patients and Methods: Clinical follow-up data was collected for men treated by RP (n=134) and by PADT (n=127) in a tertiary centre. A second PADT treated cohort from an independent tertiary centre was assessed for validation (n=134).
Results: 34% (46/134) and 54% (69/127) of men relapsed in the RP and PADT groups respectively. In the RP cohort, the number of positive cores emerged as independent factors associated with biochemical relapse (p=0.007). In the PADT cohort, the mean number of positive cores was higher in relapsed men and those with metastasis ($p<0.0001$ and p=0.03 respectively). The number of positive cores was significantly associated with biochemical relapse (p=0.01), validated by the second cohort (p=0.006), on univariate but not multivariate analysis.
Conclusion: Scoring core positivity in diagnostic biopsies may have clinical utility in predicting treatment response following surgery but has doubtful value in PADT treated men and therefore does not currently justify inclusion in universal predictive algorithms.

0327 **SIMULTANEOUS PROFILING OF MULTIPLE GENES IN ARCHIVAL DIAGNOSTIC PROSTATE CANCER NEEDLE BIOPSIES**

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Introduction: Transcriptional profiling of archival formalin fixed paraffin embedded (FFPE) diagnostic needle biopsies with known clinical follow-up, would represent a major step in investigating prognostic markers in prostate cancer. Here we report an optimised approach for simultaneous multi-gene expression analysis in archival biopsies.
Methods: Archival prostate biopsies linked to known clinical data were identified. An optimised protocol was employed to extract RNA and synthesise cDNA from epithelial tumour glands in 16 microdissected biopsies of varying Gleason grade, with benign tissue samples used for comparison.
Results: cDNA was quality control tested against three housekeeping genes prior to profiling expression of 29 promising biomarkers. All tumours amplified successfully with known tumour marker PCA3 with no expression in benign tissue, validating the approach (p=0.0181, Mann-Whitney Test). Variations were noted in the expression of particular genes across different tumour grades including a downregulation of Sef, an inhibitory regulator of fibroblast growth factor signalling, in higher grade tumours (p=0.0039, Kruskal-Wallis Test).
Conclusions: We describe here an optimised method of profiling multiple genes simultaneously in archival FFPE prostate needle biopsies. Current work is aimed at utilising this method to define key gene panels to predict outcome at diagnosis and help select the optimal treatment modality.